1: Karsten--112-113 (1916-18) 1935 Jivaro-1
116, 501, 396 (1928-29)

"The making of canoes is another important task incumbent on the men which requires great patience and skill, and this was especially the case in former times when the Indians did not possess the iron tools of the whites. The canoes of the Jibaros are dug-outs of the same type as is commonly used by the Indians in tropical South America, and they are skilled canoeists. For canoe-making only certain big trees with a straight stem can be used, and of these the cedar is the most sought after. The felling of the huge tree and the excavation of the stem was tedious work before the Indian had the iron axe and knife, and was chiefly carried out by means of stone axes and fire. The Indians still commonly use fire in digging out the stem after it is dry, but great care is necessary lest the edges should become too thin and the vessel burst. Both the Jibaros and the Canelos Indians therefore consider it necessary that the men taking part in the work should restrict their diet and observe sexual abstinence. During the days that they are engaged in felling the tree they can take nothing but roasted green plantains and tobacco water. Manioc-beer, which in normal cases serves the Indians both as food and drink, they are forbidden to consume; otherwise, it is feared, the stem will burst. Afterwards, when the men are engaged in digging it out, they are not only forbidden to have intercourse with their wives, but no woman is allowed to come near the place where they are working; if they do come near, the canoe will burst and become useless.

Besides this, the Jibaros, at any rate the tribes of the Upano, practise the following

custom when the canoe is ready for use. When the vessel has to be taken down to the river, the Indians first only do it 'in play', that is, they pretend to do it and go down to the river behaving the whole time as if they were dragging the canoe. When the vessel is really taken down, the women tie a rope to the stem and drag the canoe by it, calling in the same way as when they are calling their swine. This, [113] according to the Indians, is done 'in order that the canoe may not break'. At the same time the men walk on each side of the canoe striking incessantly on the ground with lances and sticks 'in order to prevent the anaconda(pańgi) from upsetting the canoe'. This rite of course has reference to the future use of the canoe. If a canoe is upset in the cataracts of the river, the Indians generally ascribe this accident to the powerful demon living in the river, the great water boa or anaconda."

4: Up de Graff--198 (1897) 1923 Jivaro
116, 501

"The medicine man, the biggest Jívaro I ever saw, jumped into our canoe, having seized a paddle from a neighbouring craft. These paddles are some four feet long, of which three feet is handle and one foot blade, the latter being pear-shaped and from 14 to 15 inches broad at the centre: the action is a short, quick stroke, from 50 to 60 per minute, the blade forming a strong suction behind itself owing to the speed of the stroke. Gripped with one hand close to the water and with the other at the extremity of the handle, these paddles are tremendously powerful. They are made of a very tough, fibrous, yellow wood called by the Incas remo caspi (remo being the Spanish for an oar or paddle, and caspi the Inca for wood). The process is painfully slow, owing to the crude tools at the command of this stone, their chisels are of animal's teeth, and the only substitute for the file and the plane which is known to them is sand, with which they get a wonderful finish to their work. The Jívaros call paddles 'canaliz.'

The medicine man paddled us across, then. He was the finest canoeman we ever had. He sent our dugout flying straight across the strong current in a way which the two of us together could never have equalled. His first strokes were so strong that the canoe shot away from under us and we toppled off the thwarts into the bottom."

12: Rivet--598-599 (no date) 1907 Jívaro
116, 501, 396

The canoe is indispensable to the Jíbaro. Its construction is a long and laborious operation. For this purpose, the savage looks along the banks of a stream for the biggest tree, preferably a cedar (Cedrela ordorata), and fells it with his ax; this operation alone takes two or three days of work. Then he separates the part that he wishes to use from the trunk; then he levels off one of its sides with the ax and draws on it with carbon the form of the prow and of the [599] stern. The vessel is hollowed out little by little with the aid of fire, then finished with an adze. The keel is made by the same patient, slow procedure. The length varies from 6 to 20 m., the width from 40 to 60 cm., and sometimes attains 1 meter.

The oar is made from a plank 1^{m} 20 to 1^{m} 60 long, terminating in an oval-shaped palette, the whole cut from a single piece of wood.

25: Vigna--45 [2] (no date) 1945 Jivaro
116, 481, 501

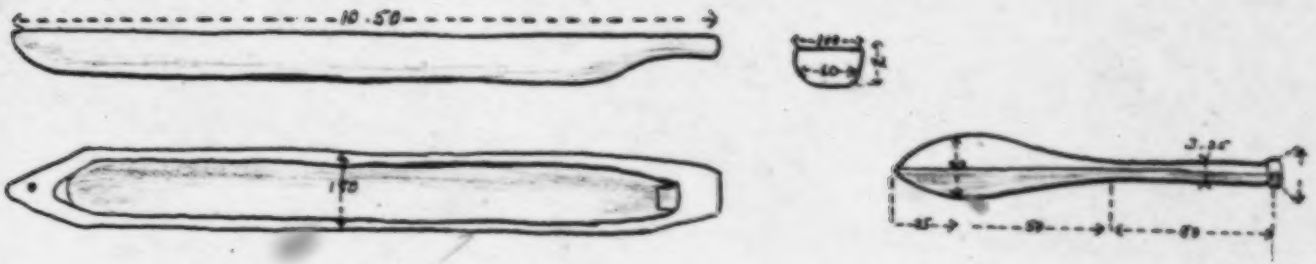
In the water, the Jibaro who is a perfect fish, braves the swiftest currents of the rivers of the eastern Amazon; he has been accustomed to swim with skill and rapidity from childhood. In order to ford the large rivers he uses a boat of wood carved from the trunk of a resistant tree. He calls this boat "canoa", and when he has completed it, before launching it in the river he will take care of the finish by means of fire, engraving on the external walls symmetrical lines and cabalistic drawings with the fire.

26: Brüning--74
116, 501, 484

(1902) 1928

Jívaro

Figure 8. Canoe and Paddle.



26: Brüning--74 [3] (1902) 1928 Jívaro
116, 501, 484

The most important means of transportation along the upper Marañón and its tributaries is the canoe (Fig. 8). One could even say that this dug-out is the only means of transportation since there are only a few isolated overland paths.

The canoe appears in several sizes. Some accomodate only one to two people, others up to twenty men. All of them are made of cedar wood. Whether small or large, they all have the same shape. The part that touches the water is round in cross-section just as the original tree. At both ends flat seats for the oarsman were provided when the canoe was dug out. The canoe is directed by means of paddles, but on upstream voyages long bamboo poles (tanganas) are required, and with their help the boat is pushed forward. Should the river bank be flat, some Indians may jump into the water to pull the canoe with the help of lianas.

26: Brüning--74-75 (1902) 1928 Jívaro
116, 501, 463

It is difficult for a neophyte to handle a canoe as it requires great skill to maintain one's balance. It is amazing to what thickness the cedar trunks grow. [75] During my trip through the Marañón territory I encountered an uprooted cedar tree with a diameter of about 170 cm.

Another means of transportation in the river area is the raft (balsa). It can be used for downstream voyages only and is therefore not so frequent. It is made by uniting several balsa trunks. The rafts are kept within the current by means of paddles.

28: Tessman--350 [4] (No date) 1930 Jivaro
116, 501, 177

'Canoe (See Glossary) and paddle: kaneitio, according to Karsten from the Spanish canalete (i. e., Indian paddle). Judging from the Spanish name, they must have been imported."

34:Harner E-4, 5 (1956-1969)1973 SD9 Jivaro SD9

tamed, both for personal amusement and for trade to the western or frontier Jívaro to obtain steel machetes, axe-heads, firearms, and ammunition.

Technology and Crafts

No single tool can be considered more ubiquitous in Jívaro life than the machete. The machete is the sole garden weeding implement as well as the only tool used for digging up root crops including the staple food, sweet manioc. It is used for woodworking, to dig clay for pottery, to prepare foods and to cut hair, and it is used to fell even the largest tree, although the less common steel axe is preferred for this task when it is available.

Machetes are of two types: the more plentiful *hapa maćit* ("deer machete"), of Ecuadorian manufacture, which was formerly obtained at Macas in exchange for one deer carcass; and the *kayens maćit* (Collins machete), of North American manufacture and preferred by the Jívaro because of its superior efficiency. The *hapa maćit* was introduced first, the Collins implement not reaching the Jívaro until about 1941. During the past few decades, large single-bitted steel axe heads have also been introduced in significant numbers by means of a system of Jívaro trading partners. Such axes are still far less plentiful than machetes, but in great demand because of their superiority over machetes in felling trees. Iron adze blades, which were apparently introduced about the same time as machetes, are possessed by only a very few individuals, but are in demand for finishing canoes and stools. All the types of steel tools are mainly obtained by trade from the western or frontier Jívaro of the Río Upano Valley.

As machetes become worn through years of continual use